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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,353

09/14/2006

Shoji Yuyama

2006\_1198A

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7590

12/11/2009

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EXAMINER

NEWMAN, MICHAEL A

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

12/11/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/587,353	<b>Applicant(s)</b> YUYAMA ET AL.	
	<b>Examiner</b> MICHAEL A. NEWMAN	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/16/2006; 07/26/2006</u> .                                  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The preliminary amendment filed on July 26<sup>th</sup>, 2009 has been entered.
2. In view of the amendment to the claims, the amendment of claims 3 – 6, and the addition of claims 7 – 13 have been acknowledged.

### ***Claim Objections***

3. Claims 6 and 10 – 13 are objected to because of the following informalities: The claims all appear to contain a typographical error in the limitation: “the supporting means being movable horizontally in front and rear and left and *light* directions and also movable vertically.” It appears as though ‘light’ should be replaced with ‘right’. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 3, 4 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - a. Claims 3, 4 and 9 recite the limitation "the control section" in line 3 of each. There is insufficient antecedent basis for this limitation in the claim. Note that "a control section" is first claimed in claim 2.

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wootton et al. (WIPO Pub No. WO 00/06078).

a. Regarding claim 1, Wootton teaches a tablet storage and take-out apparatus for storing plural kinds of tablets, filling the tablets of kind and number according to a prescription data in a vial and taking out the vial (**Page 1 line 3 – page 2 line 1 and Fig. 1A**), the apparatus comprising a photographing means for photographing the interior of the vial before attaching the cap on the vial after filling the vial with the tablets (**Page 2 lines 1 – 4 and Fig. 1A element 18**) [**Note that Wootton is actually concerned with automating the inspection/verification of the photograph**].

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078).

a. Regarding claim 3, Wootton teaches all the limitations of the independent claim 1, as set forth in the 35 U.S.C. 102 rejection of claim 1 above. As discussed above, Wootton clearly teaches a camera as part of an imaging system for verification of filled prescriptions (**Wootton Fig. 1A element 18**).

Wootton further teaches using a programmed computer to obtain the camera image from a frame grabber and to further perform the image processing (**Wootton Page 6 lines 14 - 17**). However, Wootton does not specifically teach an initializing means for initializing the photographing means in accordance with a command from the control section. Official notice is taken that it is well known in the art that it is necessary to initialize a camera prior to capturing an image. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to initialize Wootton's camera using Wootton's computer in order to properly capture an image of the tablets being dispensed.

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10. Claims 2, 5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Ogura et al. (U.S. Pg Pub No. 2001/0019100). Hereinafter referred to as Wootton and Ogura respectively.

a. Regarding claims 2 and 5, Wootton teaches all the limitations of the independent claim 1, as set forth in the 35 U.S.C. 102 rejection of claim 1 above. As discussed above, Wootton teaches the use of a camera to image the dispensed tablets for verification. Wootton; however, **does not teach** a focus control sensor for irradiating the surface of the filled tablets in the vial; and a focus control means for focus controlling the photographing means according to the detection value of the focus control sensor; wherein the photographing data of the photographing means after focus controlling by the focus control means is transferred to a control section of the tablet storage and take-out apparatus, and wherein the focus control means adopts as the detection value the mean value of the multiple detection values of the focus control sensor. **Pertaining to the same field of endeavor, Ogura teaches a focus detecting apparatus in which an autofocus operation is used to determine the optimal focus position of an imaging system. Specifically, Ogura teaches illuminating a target and repeatedly capturing an image of the target as the imaging lens is placed at different positions (Ogura PP0023). At each capture, a focus value is derived for each capture and the final focus value is determined by averaging the derived values. Finally, the lens is moved so as to match the resultant final focus value (Ogura PPs0027 – 0029). Therefore, it would**

have been obvious to one of ordinary skill in the art at the time the invention was made to repeatedly capture images of the tablets using Wootton's camera at various camera lens positions, to determine the focus values and to average the values so as to determine the optimal focus setting, as taught by Ogura, in order to automatically determine the camera lens position resulting in the best focused image so as to improve the discrimination accuracy of the tablet identification system.

b. Regarding claim 7, Wootton teaches all the limitations of the dependent claim 2, as set forth in the 35 U.S.C. 103 rejection of claim 2 above. As discussed above, Wootton clearly teaches a camera as part of an imaging system for verification of filled prescriptions **(Wootton Fig. 1A element 18)**. Wootton further teaches using a programmed computer to obtain the camera image from a frame grabber and to further perform the image processing **(Wootton Page 6 lines 14 - 17)**. However, Wootton does not specifically teach an initializing means for initializing the photographing means in accordance with a command from the control section. Official notice is taken that it is well known in the art that it is necessary to initialize a camera prior to capturing an image. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to initialize Wootton's camera using Wootton's computer in order to properly capture an image of the tablets being dispensed.

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11. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Hamilton (U.S. Patent No. 6,738,723). Hereinafter referred to as Wootton and Hamilton respectively.

a. Regarding claims 4 and 9, Wootton teaches all the limitations of the independent claim 1 and dependent claim 3, as set forth in the 35 U.S.C. 102 and 103 of the claims above. Wootton; however, **does not teach** a contrast control means for controlling the contrast of the photographing means in accordance with a command from the control section. **Pertaining to the same field of endeavor, Hamilton teaches an automatic pill counting system in which a digital camera is used to image the pills to be counted on a pharmacist tray and the image is analyzed to determine the number of pills. Specifically, Hamilton teaches that the tray surface on which the pills rest is illuminated by a liquid crystal display or the like. The color of the pills being counted is retrieved and input to a controller, based on this input, Hamilton teaches changing the color of the tray surface so that it provides a background which maximizes the contrast between the pills and surface (Hamilton Col. 7 lines 15 – 27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the color of the supporting surface in Wootton, based on the known colors of the tablets stored by Wootton, as taught by Hamilton, so as to maximize the contrast between the tablets and the background resulting in improved shape detection and verification.**



12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Ogura et al. (U.S. Pg Pub No. 2001/0019100) as applied to claim 2 above, and further in view of Hamilton (U.S. Patent No. 6,738,723).

a. Regarding claim 8, Wootton in view of Ogura teaches all the limitations of the dependent claim 2, as set forth in the 35 U.S.C. 103 rejection claim 2 above. Wootton; however, **does not teach** a contrast control means for controlling the contrast of the photographing means in accordance with a command from the control section. **Pertaining to the same field of endeavor, Hamilton teaches an automatic pill counting system in which a digital camera is used to image the pills to be counted on a pharmacist tray and the image is analyzed to determine the number of pills. Specifically, Hamilton teaches that the tray surface on which the pills rest is illuminated by a liquid crystal display or the like. The color of the pills being counted is retrieved and input to a controller, based on this input, Hamilton teaches changing the color of the tray surface so that it provides a background which maximizes the contrast between the pills and surface (Hamilton Col. 7 lines 15 – 27). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the color of the supporting surface in Wootton, based on the known colors of the tablets stored by Wootton, as taught by Hamilton, so as to maximize the contrast between**

**the tablets and the background resulting in improved shape detection and verification.**

13. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Rzasa et al. (U.S. Pg Pub No. 2003/0174326). Hereinafter known as Wootton and Rzasa, respectively.

a. Regarding claims 6 and 11, Wootton teaches all the limitations of the independent claim 1 and the dependent claim 3, as set forth in the 35 U.S.C. 102 and 103 rejections above. Wootton **does not specifically teach** a supporting member for supporting the photographing means on the body of the tablet storage and take-out apparatus, the supporting means being movable horizontally in front and rear and left and right directions and also movable vertically. **Pertaining to the same field of endeavor, Rzasa teaches a similar pharmacy validation system that uses an imager to obtain spectrograph images which are compared with known values. Specifically, Rzasa teaches that the imaging detector is mounted on an assembly which is capable of moving up and down in order to adjust the focal point and to move in a circular or ring-shaped pattern to ensure the entire contents of the vial is inspected (Rzasa PP0049 and 0050 and Fig. 6). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount Wootton's camera on a movable assembly, capable of moving up, down, left and right so as to properly focus on**

**tablets at different heights and to cover the entire field of view, as taught by Rzasa.**

14. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Hamilton (U.S. Patent No. 6,738,723) as applied to claim 4 above, and further in view of Rzasa et al. (U.S. Pg Pub No. 2003/0174326). Hereinafter referred to as Wootton, Hamilton and Rzasa, respectively.

a. Regarding claim 12, Wootton, in view of Hamilton, teaches all the limitations of the dependent claim 4 as set forth in the 35 U.S.C. 103 rejection of claim 4 above. Wootton **does not specifically teach** a supporting member for supporting the photographing means on the body of the tablet storage and take-out apparatus, the supporting means being movable horizontally in front and rear and left and right directions and also movable vertically. **Pertaining to the same field of endeavor, Rzasa teaches a similar pharmacy validation system that uses an imager to obtain spectrograph images which are compared with known values. Specifically, Rzasa teaches that the imaging detector is mounted on an assembly which is capable of moving up and down in order to adjust the focal point and to move in a circular or ring-shaped pattern to ensure the entire contents of the vial is inspected (Rzasa PP0049 and 0050 and Fig. 6). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to mount Wootton's camera on a movable assembly, capable of moving up, down, left and right so as to**

**properly focus on tablets at different heights and to cover the entire field of view, as taught by Rzasa.**

15. Claims 10 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wootton et al. (WIPO Pub No. WO 00/06078) in view of Ogura et al. (U.S. Pg Pub No. 2001/0019100) as applied to claims 2 and 5 above, and further in view of Rzasa et al. (U.S. Pg Pub No. 2003/0174326). Hereinafter referred to as Wootton, Hamilton and Rzasa, respectively.

a. Regarding claims 10 and 13, Wootton, in view of Hamilton, teaches all the limitations of the dependent claims 2 and 5 as set forth in the 35 U.S.C. 103 rejection of claims 2 and 5 above. Wootton **does not specifically teach** a supporting member for supporting the photographing means on the body of the tablet storage and take-out apparatus, the supporting means being movable horizontally in front and rear and left and right directions and also movable vertically. **Pertaining to the same field of endeavor, Rzasa teaches a similar pharmacy validation system that uses an imager to obtain spectrograph images which are compared with known values. Specifically, Rzasa teaches that the imaging detector is mounted on an assembly which is capable of moving up and down in order to adjust the focal point and to move in a circular or ring-shaped pattern to ensure the entire contents of the vial is inspected (Rzasa PP0049 and 0050 and Fig. 6). Therefore it would have been obvious to one of ordinary skill in the art at the time the**

**invention was made to mount Wootton's camera on a movable assembly, capable of moving up, down, left and right so as to properly focus on tablets at different heights and to cover the entire field of view, as taught by Rzasa.**

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Rzasa et al. (U.S. Pg Pub No. 2004/0207842)
- b. Sleep et al. (U.S. Pg Pub No. 2003/0176942) teaches a packaging line inspection system.
- c. Rzasa et al. (U.S. Patent No. 6,771,369)
- d. Lewis et al. (U.S. Patent No. 6,690,464) teaches a spectroscopic pharmaceutical packaging verification system.
- e. Williams et al. (U.S. Patent No. 5,597,995) teaches a pharmacy verification step in which filled prescriptions are manually inspected by pharmacists.
- f. Bose et al. (U.S. Patent No. 5,040,228) teaches an automatic focusing inspection system that iteratively narrows in on the optimal focal distance.
- g. Bachelder (U.S. Patent No. 7,221,805) teaches creating a composite focused image by computing a weighted average of the images taken at multiple focus levels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL A. NEWMAN whose telephone number is (571) 270-3016. The examiner can normally be reached on Mon - Thurs from 9:30am to 6:30pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh M. Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bhavesh M Mehta/  
Supervisory Patent Examiner, Art Unit 2624

M.A.N.